DOCUMENT RESUME

ED 370 498 HE 027 458

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TITLE	A Comparative Study of Students' Learning Experiences in Intensive and Semester-Length Courses and of the Attributes of High-Quality Intensive and Semester Course Learning Experiences.
INSTITUTION	North American Association of Summer Sessions, St. Louis, MO.
PUB DATE	Mar 94
NOTE	42p.; Paper presented at the Meeting of the North American Association of Summer Sessions (Portland, OR, November 16, 1993).
AVAILABLE FROM	North American Association of Summer Sessions, 11728 Summerhaven Drive, St. Louis, MO 63146-5444 ($2.50).
PUB TYPE	Speeches/Conference Papers (150) -- Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Class Organization; Courses; English Literature; Higher Education; Instructional Effectiveness; *Learning Experience; Marketing; *School Schedules; Semester System; *Student Attitudes; Summer Programs; Summer Schools; *Teacher Attitudes; *Time Factors (Learning)
IDENTIFIERS	*Intensive Courses

ABSTRACT

This study compared students' learning experiences in a set of courses in British literature and a set of courses in marketing, in which each set included a course taught in an intensive format and a semester-long format with the same instructor and content. Data collection included participant observation, videotaped class sessions, questionnaires completed by students, document analysis, and interviews with students and instructors. Students and faculty felt that intensive classes engendered a continuous learning experience which allowed students to connect and synthesize ideas better. Students reported they were able to concentrate exclusively on a small number of classes and could plan their schedules better. Other findings suggested that longer class sessions fostered more in-depth discussions, that intensive classes required more mental investment and commitment, that students' academic performance improved, that instructors' expectations were relaxed, and that classroom relationships were closer. Results suggest that if students perceive that most or all of the high-quality attributes are present, intensive courses are more powerful learning experiences. Factors that may alter the relationship between high-quality attributes and powerful intensive courses include teaching skill, degree of intensiveness, students' other responsibilities, students' age and intellectual development, time of year, subject matter, and relative classroom experience. (JDD)

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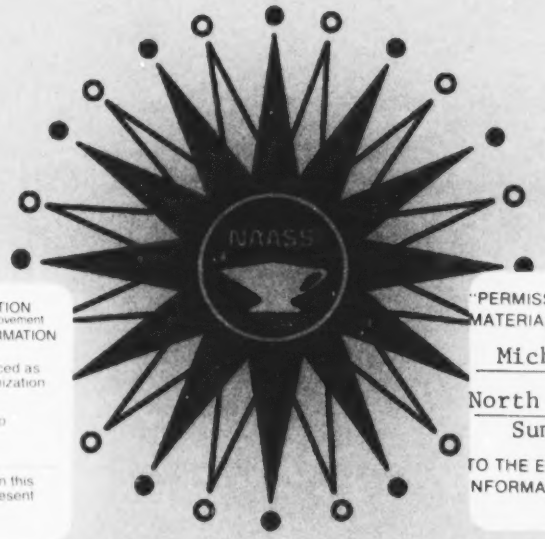
RESEARCH REPORT

A Comparative Study of Students' Learning Experiences in Intensive and Semester-Length Courses and of the Attributes of High-Quality Intensive and Semester Course Learning Experiences

by
Patricia A. Scott, Ph.D.



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Patricia A. Scott
NAASS PRESENTATION

A Comparative Study of Students' Learning Experiences in Intensive and Semester-Length Courses and of the Attributes of High-Quality Intensive and Semester Course Learning Experiences

November 16, 1993
Portland, Oregon

I. INTRODUCTION

A. Let me begin this morning by thanking NCCSS and NAASS for their support of this study and Dr. Harland Samson for his encouragement, support, and helpful comments along the way.

B. Let me give you a brief outline of today's presentation. First, I would like to discuss the evolution of this study, then explain the research method and design used in the study, review some of the understandings that emerged from this study, and conclude by discussing areas for future research.

II. HISTORY

A. I started investigating intensive courses when I was commissioned by Dean Harland Samson, of the University of Wisconsin-Madison, to do a literature review on intensive courses. He hoped a thorough literature review might help to confirm and/or disconfirm the variety of criticisms intensive courses historically have received.

B. So, I started examining the literature, and although there were limitations to the studies reviewed, I was surprised to discover that most of the studies comparing intensive and semester-length classes reached similar conclusions. Indeed, two themes repeatedly emerged in the literature.

1. First, the research indicated that intensive courses yield equivalent and sometimes superior learning outcomes in comparison to semester-length courses regardless of the type of format (i.e., weekend, summer, interim, modular, or

regular term intensive courses) and the field of study (humanities, natural sciences, professional programs, or social sciences).

a. As Table 1 indicates, only one study comparing learning outcomes in matched intensive and semester-length classes found in favor of the semester-length course. The remaining studies reported either nonsignificant differences in learning outcomes or significant differences in favor of intensive courses.

2. Second, the literature suggested that intensive courses produce qualitatively different student learning experiences than semester-length classes, and under certain circumstances, these experiences seem to yield more powerful and meaningful learning experiences.

3. For those interested, the literature review was published in ***Higher Education: Handbook of Theory and Research*** (see Scott and Conrad in the reference section of this document for the full citation).

C. Based on the literature review, I became intrigued by the notion that intensive courses can produce qualitatively different learning experiences. So, I decided to conduct a study to more fully explore students' experiences in intensive compared to semester-length classes.

III. METHOD

A. Study Design

1. To conduct the study, I needed a research design and mode of inquiry that would allow me to probe the tacit, personal, and ongoing aspects of students' classroom experiences.

2. Consequently, I used a multi-case study design and a qualitative mode of inquiry to compare two sets of courses.

Each set of classes had the same instructor and content, except one course in each set was taught in an intensive and the other in a semester format.

3. In the end, this design and mode of inquiry allowed me to describe and compare how instructors and students in four different courses differentially perceived, interpreted, and made sense of their intensive or semester-length course experiences.

B. Research Questions

1. Three research questions guided the study:

   a. How do students experience intensive courses in comparison to semester-length classes, and if the experiences differ, how do they differ?

   b. What factors contribute to high-quality intensive and semester course learning experiences, and if these factors differ, how do they differ?

   c. Assuming high-quality attributes are present, how will students' experiences in intensive and semester-length classes compare?

C. Sampling Strategy

1. To select the courses for study, first, I searched for a university that offered intensive classes and would permit me to conduct the study. Ultimately, I chose a small midwestern university that I called "the University of Yorktown," which was located in "Jacksonville." I described the University of Yorktown and Jacksonville in my dissertation as follows:

   a. The University of Yorktown is a moderately small midwestern university with approximately 8,500 students. Founded in 1909, the University was first

designated a normal school but later became a comprehensive state university in 1956. It has over 40 academic departments/divisions and offers 78 undergraduate and 17 graduate programs.

b. The University of Yorktown is situated in a residential section of Jacksonville, a small city with a population of approximately 50,000. Jacksonville lies in a relatively rural section of the state and is roughly three hours away from any large metropolitan area. The student population largely consists of culturally and ethnically homogeneous matriculants whose parents reside within a 50 mile radius of the University.

2. After selecting the university, I devised a set of eight criteria to guide the selection of the classes. These included the following:

a. Two of the courses (one in each set) had to be taught during the 1992 summer session and their matched counterparts during the 1992 fall semester.

b. Each set of courses had to have the same instructor, course number, and course content.

c. Both sets of courses had to be undergraduate classes.

d. Each set of courses had to represent different fields of study (i.e., humanities, social sciences, natural sciences, or the professions).

e. Both sets of courses had to be taught by instructors who had previously taught both summer and semester-length courses and who were identified as effective instructors by the dean of their respective colleges.

f. One of the intensive courses had to be taught for two and one-half hours per day, four days per week, for

four-weeks. The other intensive course had to be taught for 75 minutes per day, four days per week, for eight weeks. The fall classes had to be taught respectively for 55 minutes per day, three days per week and for 85 minutes, two days per week, in a 14-week format.

g. The selected classes could not be lab courses.

h. Finally, the courses could not have prerequisites that would prevent me, personally, from understanding the course content.

3. After devising these criteria, I procured copies of the University of Yorktown's summer and fall timetables and made a list of all the courses (and instructors) that satisfied my criteria. Next, I contacted the Deans of Business Administration and Arts, Letters, and Sciences to gain permission to conduct the study and to ask them to identify the most effective instructors from the list of potential candidates. Based on their recommendations, I contacted two instructors who eventually agreed to participate in the study.

a. The first instructor, Dr. Haworth, was a 42 year old English professor and a member of the University of Yorktown's faculty since 1987. She had over ten years of teaching experience and described herself as a "student-oriented" instructor.

(1) I observed Dr. Haworth's class ***British Literature*** (English 252). The University Catalog described the class as follows:

(a) "Encounters with major works of English literature of the nineteenth and twentieth centuries; including fiction, drama, essays, and poetry" (University Catalog, p. 169)

b. The second instructor, Dr. Scott, was a 33 year old assistant professor of marketing with over five years of teaching experience and was a member of the faculty since 1990.

(1) I observed Dr. Scott's class ***Sales Methods and Procedures*** (Marketing 301), which the University Catalog described as follows:

(a) "A survey and integration of the basic elements in the sales process including sources and selection of sales prospects; determination of consumer needs; development of product package to meet these needs; sales techniques to effectively present product and requirements, and legal and ethical obligations of the salesman" (University Catalog, p. 183).

D. **Scheduling Formats**

1. The summer English class was scheduled for 75 minutes a day, four days a week, for eight weeks whereas the summer marketing class was scheduled for two and one-half hours a day, four days a week, for four weeks. The fall English class met for 85 minutes twice a week and the fall marketing class for 55 minutes three times a week for 14 weeks. Tables 2 and 3 compare and contrast the summer and fall versions of English 252 and Marketing 301. Table 4 and 5 compares student characteristics in the two English and Marketing classes.

2. These four classes were ideally suited for this study since they allowed me to compare highly intensive versus semi-intensive learning experiences and three-day-a-week compared to two-day-a-week semester-length courses.

E. **Data Collection**

1. I utilized various data collection methods in the study.

   a. **Participant observation**: I attended all the summer and fall English and Marketing class sessions and immersed myself in the classroom settings in order to experience each of the classes from the students' perspectives and to observe classroom interactions and reactions as they occurred.

   b. **Videotaped class sessions**: I videotaped all the summer and fall class sessions, which allowed me to more directly compare the summer and semester courses. Videotaping also enabled me to conduct a classroom interaction and a time allocation analysis in each of the two sets of classes.

   c. **Questionnaire**: I distributed a short questionnaire to all the summer and fall students toward the end of each course to gather additional information such as age, major, grade point average, year in school, expected class grade, previous summer school classes, course load, hours worked per week, and prior interest in the subject.

   d. **Document analysis**: I examined grades, course outlines, class evaluations, and any other document distributed in the two sets of classes.

   e. **Informal interviews**: I used my field notes to record conversations with students and instructors before or after class.

   f. **Focused in-depth interviews**: After each course ended, I interviewed a number of students: 18 students from the summer classes and 11 from the fall classes. All

interviews lasted approximately two hours and were audiotaped and transcribed.

(1) I recruited student interviewees based on the principles of theoretical sampling. That is, students were chosen based on characteristics that might prove theoretically relevant (e.g., age, gender, grade point average, year in school, major) (see Glaser and Strauss, 1967). Based on information contained in the questionnaire, I selected a theoretically representative sample of students from each class. For example, I selected students of different ages, majors, and gender who had different grade point averages, levels of interest in the subject, course loads, and work schedules.

(2) In addition to the student interviews, I also interviewed both instructors after the end of the fall semester. I interviewed the English instructor on three occasions and the marketing instructor on two. In total, I interviewed each instructor for approximately five hours. These interviews were audiotaped and transcribed as well.

F. **Trustworthiness**

1. To ensure accurate representation of student and instructor perspectives, I incorporated several methods to increase the study's trustworthiness (i.e., validity and reliability).

   a. **Multiple cases and cross-case comparisons**: I compared and analyzed two sets of classes from two different fields of study that exhibited different scheduling formats. These methods broadened the transferability of my conclusions.

b. **Prolonged engagement and persistent observation**: I attended all class sessions. This allowed me to participate in and observe the teaching and learning process on a continual basis and to explore salient themes over time (Lincoln and Guba, 1985).

c. **Multiple data methods and sources**: The study incorporated various data collection methods including participant observation, document analysis, a questionnaire, field notes, videotape recordings, and in-depth interviews. Moreover, I interviewed 29 students and both of the instructors. Incorporating multiple data collection methods and sources allowed me to explore these classes from various angles and perspectives and to triangulate my data.

d. **Negative case analysis**: I acknowledged and analyzed all disconfirming evidence and revised my conclusions accordingly.

e. **Systematized reflexivity**: I tried to be aware of and continually confront any *a priori* assumptions in light of the "logic of the data" (Lather, 1986, p. 67).

f. **Mechanically recorded data**: I videotaped all class sessions and transcribed all 31 audiotaped interviews, which increased the study's "reliability."

g. **Thick description and corroborating quotes**: I described the physical, social, and interpersonal contexts that influenced both the data and the data collection in "thick" detail. I also included an abundance of corroborating quotes from students and instructors to support my assertions and ultimately, my conclusions. As Lincoln and Guba (1985) note, these methods allow readers to form their own conclusions based on the data and determine the transferability of the conclusions to other cases.

G. **Analysis**

1. To analyze the data, I used a modified form of the **constant comparative method**, originally developed by Glaser and Strauss (1967). This method required that I code all the data into categories of analysis which were later refined and recoded as theoretical properties began to emerge.

2. In addition to qualitative analysis, I used the following statistical tests to analyze the quantitative data.

   a. **Difference between two population proportion test:** used to determine whether communication patterns were statistically different in the intensive and semester-length versions of the same class.

   b. **T-test:** used to determine if there were any statistically significant differences in students' ages, grade point averages, expected course grade, reported interest in the subject, hours worked per week, year in school, grades on assignments, final grades, and class evaluations between the matched summer and fall classes.

   c. **Chi Square Test**: used to determine if there were statistically significant relationships between classroom communication patterns and the scheduled format.

   d. **Paired Difference Test**: used to determine if there were any statistically significant differences in the amount of time devoted to various matched lectures/discussions in the summer and fall classes.

   e. **Wilcoxon Test**: The Wilcoxon Test replaced the Paired Difference Test in those circumstances where the data failed the Shapiro-Wilk Test of Normality.

H Limitations

1. Although I incorporated various methods to increase the study's trustworthiness, there were several limitations to the study.

    a. Due to limited time and resources, I only compared and contrasted two cases at one institution, which limited the study's theoretical "density."

    b. The multi-case study design did not eliminate all potential confounding variables. For example, I was unable to control for student entry characteristics, class size, or students' course loads. Moreover, while the course material and instructional approaches were similar in both sets of classes, they were not identical. Thus, many of the findings must be considered in light of other plausible, competing explanations. On the other hand, although these factors increased "extraneous variability," the constant comparative method allowed me to systematically examine and analyze the data in light of these variables.

    c. Because of time limitations, I was not able to obtain a "member check" (Lather, 1986, p. 67). That is, I did not send participants a draft of the study for their review.

    d. Another method I originally hoped to incorporate was peer debriefing--i.e., "the process of exposing oneself to a disinterested peer . . . for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind" (Lincoln and Guba, 1985, p. 308). This method helps keep the researcher "honest" and offers an opportunity to test working hypotheses and receive important feedback from colleagues. Because of logistics and time limitations, this method was not employed.

IV. FINDINGS

A. For the sake of time, I'm going to discuss the overall understandings that resulted from asking the research questions posed at the beginning of the presentation. Forty minutes does not permit me to discuss how I reached some of these understandings.

B. **Question one**: How do students' experience intensive courses compared to semester length classes, and, if the experiences differ, how do they differ?

1. I have come to understand a few things about intensive courses as a result of this study. In terms of my first research question, I have come to understand that students' experiences are different in intensive courses, but the quality of the experiences depends on the presence or absence of certain attributes that I will discuss later. When these attributes are present, students indicated that intensive courses become rewarding learning experiences for a number of reasons.

   a. **Greater continuity of learning**: Students and faculty said that unlike semester courses, intensive classes engendered a continuous learning experience which they attributed to the four consecutive day a week format. This continuity in the learning experience allowed students to connect and synthesize ideas better and develop a broader understanding of the subject.

   b. **Greater concentration/focus on learning**: Students explained that because they typically took only one or two classes during the summer, they were able to concentrate exclusively on those classes rather than divide their attention among five different subjects as was often the case during the typical semester. This exclusive attention allowed them to immerse themselves in the subject and develop a stronger relationship with the material.

c. **Nonprioritized learning:** In addition to greater focus, fewer courses allowed students to devote more time and energy to classes that might otherwise get "lost in the shuffle" during the academic year. As many students mentioned, the semester format often forced them to prioritize subjects, which often resulted in "less important" classes, such as English literature, receiving less academic attention.

d. **Scheduling and planning:** Another experience many students mentioned as common to intensive courses concerned planning. Many students felt they could plan their schedule better in intensive formats because they had fewer courses to "juggle" and fewer due dates to track.

e. **Longer class sessions:** Many students felt the longer class sessions fostered more in-depth and meaningful discussions than they experienced in 50-minute semester classes.

f. **Mental investment and commitment:** Almost all the students agreed that intensive courses required more mental investment and commitment than semester-length classes. Because class sessions were often longer and scheduled every day, they forced students to exert more mental energy to stay "in it"--i.e., to remain attentive.

g. **Performance:** Most of the students interviewed felt their academic performance improved in summer intensive classes compared to the semester, which they attributed to a number of factors:

(1) **Number of courses:** Many students attributed their improved performance to the fact they only took one or two concurrent summer classes rather

than the typical semester course load of five classes.

(2) **Short Duration**: Some students attributed their improved performance in intensive courses to their short duration, which students said helped maintain their academic momentum and stamina.

(3) **Retention and Understanding**: Many students attributed their improved performance to better retention and understanding of the material. Students said they retained information better in intensive courses because of their short duration.

(4) **Absences**: Another reason many summer students thought they performed better was because intensive courses "disciplined" them to attend class. The study's absentee data confirmed this.

(5) **Procrastination**: Finally, many students thought they performed better in intensive courses because they procrastinated less compared to the semester.

h. **Decrease in superfluous material**: Many students mentioned that intensive course instructors often "cut to the chase" and eliminated superfluous material from the course content. A few students said they felt cheated, but the majority of students appreciated the opportunity to concentrate on the most important material.

i. **Future Learning and Development**: Some students believed their intensive course experience would influence their future learning and development. One student said, for example, that intensive courses prepared him for the type of learning required in many jobs. He said: "In my profession, a lot of the training

is intensive. It probably is in most other [professions] too. Like when they send you to school to learn a new operating system or a new application of something, it's like eight hours a day for a week or for three days straight through, and I think the fact that I've been through intensive courses will help me when it comes my time to do that where I work."

j. **Classroom Relationships**: Almost all the summer students thought the classroom relationships were closer in their intensive courses than they normally experienced during the semester, which they attributed to their instructors, the smaller class size, and the everyday format. Indeed, many students viewed the enhanced classroom relationships as one of the major benefits of intensive courses. Students said class members seemed more concerned about one another and described their learning encounter as a "shared" experience--more like a "community."

k. **Student-Teacher Relationship**: In addition to the closer student relationships, most students thought that the student-teacher relationship was closer as well.

l. **Classroom Atmosphere**: Many students described summer intensive courses as more "laid back" than semester classes, even though students progressed through the material faster. Indeed, many students perceived summer intensive classes as more informal, instructors as more willing to deviate from traditional teaching practices, and the classes as smaller.

m. **Expectations**: Students perceived that instructors often relaxed their expectations in summer intensive classes, which the two instructors confirmed. Both instructors said they reduced the work load in the summer, and the marketing instructor acknowledged that he also eased his grading criteria.

n. **Classroom Diversity**: Students and instructors said that summer intensive classes were typically much more diverse with many more nontraditional students compared to semester courses.

o. **Memorableness**: Finally, many students said that summer intensive classes were more memorable than most semester classes because students enroll in only one or two courses instead of five, and summer classes require more sacrifice.

2. Although students praised intensive courses under favorable conditions, they also lodged some criticisms.

   a. First, students lamented that instructors often eliminated or shortened assignments in intensive courses due to time constraints. Consequently, some assignments were less interesting or meaningful than they might be during the semester. Students particularly complained about the loss of semester-length projects/assignments, which they described as valuable learning experiences.

   b. Second, some students complained that they experienced greater levels of stress in intensive courses compared to semester classes. This was particularly true for students who worked more than 30 hours a week and who enrolled in two concurrent summer school classes. However, students who worked fewer hours and/or took fewer courses indicated that intensive course experiences were often more relaxing than semester classes.

3. **Students' choice of intensive or semester formats**

   a. If the students could be assured of good teaching, most of those interviewed said they would prefer an intensive over a semester format as their preferred mode of learning.

b. However, when the high-quality attributes were missing, students preferred the semester format because intensive courses became much more unpleasant than comparable semester courses under these conditions. Indeed, students said these intensive courses often resulted in:

(1) **Boredom and monotony**, particularly when instructors just lectured. If lecture was the primary mode of instruction, students preferred the semester format because class sessions were shorter and boredom was more easily tolerated.

(2) **Information Overload**--i.e., being bombarded with information too quickly. Students said this was one of the major advantages of the semester system: it allowed students to absorb information slowly and reflect on the material between class sessions.

(3) **greater amounts of stress and pressure**

C. **Question two:** What factors contribute to high-quality intensive and semester course learning experiences, and, if these factors differ, how do they differ?

1. To answer this question, I asked students to describe an ideal semester and intensive class, and in doing so, to identify the key factors or attributes responsible. Much to my surprise, there were few differences between the two sets of attributes. In short, the attributes of a high-quality semester and intensive course learning experiences were essentially the same, except the attributes had to be present in greater quantities and to a greater degree in intensive courses. The attributes students identified included the following:

2. **First, students said a good learning experience required an instructor who:**

   a. displayed enthusiasm about teaching and the subject;
   b. attempted to create a worthwhile classroom experience for students;
   c. was energetic;
   d. exhibited a positive attitude toward teaching in the intensive format;
   e. related to students on their level;
   f. demonstrated knowledge and expertise;
   g. possessed relevant experience in the subject area;
   h. exercised flexibility in the classroom;
   i. related to students as teacher, mentor, and sometimes as a friend/colleague;
   j. communicated effectively and presented material in an organized fashion;
   k. willingly helped students;
   l. listened to students;
   m. adopted the roles of learner as well as instructor;
   n. was unbiased;
   o. provided ample feedback on assignments;
   p. did not overwhelm students with work;
   q. was sensitive to students' academic and nonacademic needs; and
   r. demonstrated creativity in the classroom.

3. **Second, a good learning experience required teaching methods that:**

   a. varied and changed according to classroom needs;
   b. promoted active learning;
   c. promoted interactive learning;
   d. encouraged students to apply the learned material;
   e. allowed students to experience the material in multifaceted ways;
   f. promoted student-faculty interaction and exchange of ideas;

g. emphasized depth over breadth of material;
h. helped students see "the big picture"; and
i. incorporated student suggestions and ideas into the class.

4. **Third, a good learning experience incorporated assignments that:**

a. challenged students;
b. allowed students to apply their learning; and
c. students considered meaningful.

5. **Fourth, a good learning experience used forms of evaluations such as:**

a. take-home exams, essay exams, or other methods (e.g., papers) that encouraged students to understand and apply the material, not just memorize it.

6. **Finally, a good learning experience often required a smaller class size and a classroom environment that:**

a. was relaxed and nonthreatening;
b. supported the expression of opinions and ideas without ridicule or retribution;
c. facilitated collaborative and collegial classroom relationships;
d. promoted strong student-instructor relationships; and
e. established a comfortable physical environment.

D. Examined more broadly, two themes emerged from the analysis that capsulized what students were trying to say: **process** and **connection.** Students essentially stated that they wanted a process-oriented, connected approach to teaching and learning.

1. With regards to **process**, students seemed to say that a good learning experience required an instructor who attended to the learning process (i.e., the way students learn) as much, if not

more than what or how much students learn. Students indicated that far too often instructors approached learning strictly as a cognitive act and ignored its affective, social, physical, and even spiritual components. Learning merely became an ingestion of facts and figures and instructors ignored how students experienced that information and the environment in which they learned it. Instead, students wanted a multi-faceted learning experience that harnessed the learning process in an effort to improve learning.

2. To maximize the experience, students wanted to **connect** to the learning process, and they wanted to connect in several ways.

   a. First and foremost, students wanted a personal, meaningful **connection to the material**. They did not want to learn in the abstract or to be fed meaningless knowledge. To be sure, they wanted to benefit from the instructors' knowledge and expertise, but they also wanted to actively engage the material themselves, to understand its significance in the larger scheme of things, and apply it personally and/or professionally.

   b. Moreover, students wanted to **connect with the material in diverse ways.** Ideally, they wanted a multidimensional sensory (visual, auditory, and tactile) and developmental (intellectual, social, affective, physical, and spiritual) experience. In short, the more ways students connected with the material, the more meaningful the material became and the greater its impact on them.

      (1) To help them connect with the material, students sought a knowledgeable instructor who was connected to the material him or herself and who could effectively communicate that connection through organized, enthusiastic presentations or discussions. They wanted an instructor who

employed an array of teaching methods, who could connect students to the material in a variety of different ways, and who could sense students' interest level and adjust his or her teaching methods accordingly.

c. To facilitate their connection with the material, students wanted to **connect with the other students** (i.e., to humanize the learning experience). They said the more they connected with other learners and struggled with the material together, the more comfortable they felt expressing their opinions in class and asking for help. Connections among students also fostered discussion and expression of diverse opinions, which in turn, stimulated new thoughts and ideas. Ideally, many students sought a "community" of learners who could share the same learning experience and an instructor who understood the social context of learning and valued interactive, collaborative education.

d. In addition to their classmates, students also wanted to **connect with the instructor**. They wanted to interact with the instructor, not as an authority figure, but as a fellow human being whose knowledge and opinion they respected. They wanted an approachable, unbiased instructor who welcomed questions, willingly helped students, provided meaningful feedback, exhibited enthusiasm for teaching and for the subject matter, displayed human frailties, listened to their ideas, and cared about students' concerns. In short, students wanted to be important to the instructor. Conversely, students did not want an omnipotent instructor who viewed them as empty vessels only to be filled with the instructor's knowledge nor an instructor who cared more about his or her research than students and their learning.

e. Students also wanted **a connection to the teaching and learning process** itself. They wanted input into the class, to influence the instructor's expectations and requirements when necessary, to have choices, and to express their opinion without fear of retribution. Moreover, they did not want to be viewed as passive observers but as active, capable participants who could contribute meaningfully to the teaching and learning process. This required a creative instructor who could reveal the joys of the learning to students, who could empower students and invite them into the process, who could be flexible, and who could be both teacher and learner.

f. Finally, to facilitate connections in the other areas, students also wanted to feel personally **connected to the classroom**. As one student commented, the classroom should serve as a "catalyst" to learning, but to do so requires a "comfortable," "nonthreatening," "supportive" environment where classmates welcome and respect all viewpoints. Moreover, the physical environment should be comfortable and compliment the social/affective climate. To facilitate classroom connections, students sought an instructor who understood the importance of and could maximize the classroom experience.

3. While time does not permit me to discuss the supporting literature, suffice it to say, there is an abundance of supporting research to corroborate the effectiveness of most of the attributes students identified as important. Indeed, active teaching methods, strong classroom relationships, a comfortable learning environment, student input into a class, and an enthusiastic, empathic instructor have all been cited in the teaching and learning research as important elements to the learning process.

V **Question Three**

A. The first two research questions provided important information about intensive courses and ways to maximize students' learning experiences, but they naturally led to an important third meta-question: **Assuming that the high-quality attributes are present, how will students' experiences in intensive and semester-length classes compare?** This question prompted further analysis of the understandings that emerged from the first two research questions and has led to a working hypothesis concerning powerful intensive course experiences.

B. Consistent with my literature review on intensive courses, this study suggests that if students perceive most or all of the high-quality attributes to be present, intensive courses become more than just positive learning experiences, they can become powerful learning experiences--more powerful than comparable courses offered in traditional semester formats. By powerful, I mean a learning experience that is more memorable, more meaningful, and exerts a stronger long-term impact on students.

C. This occurs because, unlike semester-length courses, intensive classes **synergistically amplify** the effect of these high-quality attributes and as a result, exert a greater impact on students than comparable semester-length courses. This occurs for a number of reasons.

1. First, the greater amount of class time per day and the continuity between class sessions allow instructors to incorporate more complex, process-oriented activities into the classroom. Thus, activities such as field trips, problem-solving exercises, inductive learning approaches, simulations, and a multitude of group, experiential, and cooperative learning exercises are more easily incorporated within an intensive format. As Richardson (1973) notes, intensive courses free classes from the "tyranny of the bell" (p. 192) and in so doing, allow instructors to incorporate process-

oriented connected approaches in the classroom and maximize their effects.

2. Second, intensive courses allow instructors and students to step outside the norms of the traditional semester--norms which sometimes stifle process-oriented connected approaches to teaching and learning. This study suggests that students and faculty associate the semester with certain teaching and learning methods, and students often resist alternative methods that violate semester norms. There are few, if any, established norms associated with intensive courses, and thus, the instructor is free to experiment with nontraditional teaching and learning methods without undue resistance. In fact, students often welcome these nontraditional approaches.

3. Finally, the concentrated amount of classroom time, the continuity between class sessions, the continual focus on the subject, and the lack of established norms, in combination with a process-oriented connected approach strengthen students' connections with the material, the classroom, classmates, the instructor, and with the teaching and learning process. As a result, the connections exert a greater impact on students. It is analogous to a new relationship. A relationship develops faster when a couple spends more concentrated time together, sees each other daily, and date each other exclusively. The same is true for student connections in intensive courses.

    a. Students connect with the **material** faster because they are immersed in the material and figuratively, eat, sleep, and drink the class.

    b. Intensive courses strengthen students'connections to the **classroom** because students attend class daily and often spend longer continuous periods of time together in the classroom. In conjunction with a process-oriented connected approach to teaching, a relaxed, nonthreatening classroom culture quickly forms which

increases students' comfort and willingness to participate. As a result, the classroom soon becomes a home away from home where students and the instructor construct knowledge in personal and meaningful ways.

c. Students connect better with **instructors** and their **classmates** in intensive courses for similar reasons. Students see the instructor and classmates daily, spend greater periods of time together during each class session, and interact with fewer students and instructors during the week. Thus, connections form faster and students develop more complete impressions of one another.

d. Finally, intensive courses, in conjunction with a process-oriented connected approach to teaching, bolster students' connections with the **teaching and learning process** because students actively participate in the process for longer periods of time and on a daily basis. Moreover, because the classroom atmosphere is more supportive and nonthreatening, students more comfortably participate in the process and display fewer resistances.

D. In contrast, the discontinuous nature of the semester format enervates process-oriented, connected forms of teaching and learning because just as process emerges, the class session ends and students direct their attention elsewhere. Connections are constantly disrupted and the instructor must reforge them again and again. Although process and connections can occur, they form more gradually and consequently, affect students less. Indeed, one could argue that the semester is actually more conducive to what Johnson, Johnson, and Smith (1991) termed the transmission model of teaching. In this model, instructors view students' minds as empty vessels to be filled with knowledge. The instructor's goal is to transfer his or her knowledge to students and fill the void.

E. In many respects, the semester is ideally suited for this model of teaching and learning. Students remain in class for short periods of time and are better able to ingest "facts" transmitted from teacher to student. Students are fed these "facts" during short 50-minute class sessions separated by rest periods. Because transfer of knowledge is the main goal, the lecture becomes its main tool since it most efficiently accomplishes the task. Indeed, the lecturer partitions and segments knowledge much like the semester partitions and segments class sessions.

F. Conversely, a transmission model of teaching used in an intensive format only intensifies the lack of process and connections and consequently, diminishes the learning experience more than it might during the semester.

VI. FACTORS THAT MAY ALTER THE RELATIONSHIP BETWEEN HIGH-QUALITY ATTRIBUTES AND POWERFUL INTENSIVE COURSES

A. While the relationship between high-quality instruction and powerful intensive course learning experiences will be true under most circumstances, this study suggests that certain situations or factors may alter the relationship.

1. First, teaching skill is an important factor in determining how students will experience an intensive course. An instructor may intend to implement a process-oriented connected approach to teaching, but this study suggests that these methods require considerable skill and necessitate some training.

2. Second, this study indicates that the degree of intensiveness effects how students experience an intensive class. Essentially students stated that the more intensive the course (i.e., the longer the class sessions and the shorter the completion time), the greater the need for the high-quality attributes and the more process-oriented and connected the teaching and learning approach had to become.

3. Third, students indicated that other responsibilities (i.e., other courses or employment) can significantly effect how they experience intensive courses. Students who felt overloaded due to too many work or academic responsibilities described a more negative learning experience than students who could "smell the roses." Thus, the presence or absence of high-quality attributes becomes a moot point if the student is inundated with too many other responsibilities.

4. Fourth, this study suggests that students' age and intellectual development will affect how students experience intensive courses, especially classes incorporating a process-oriented, connected approach. Perry (1970) identified nine stages of intellectual development in his longitudinal study of college students. These stages ranged from the "simple dualistic" stage where students engaged in black and white thinking and preferred lectures that fed them "important facts," to "relative thinking," where students contemplated the relativity of knowledge, took more responsibility for their own learning, and relished class participation and the opportunity to share ideas. Perry noted that many students reached the stage of relative thinking by their third year in college.

    a. Because of the necessity for active and interactive learning in high-quality intensive courses, students in their early stages of intellectual development may respond less enthusiastically to intensive courses. For example, students in the early stages of intellectual development still engage in simplistic thinking, which could hamper in-depth discussions. More intellectually developed students, on the other hand, typically exhibit more relativistic thinking and can engage in and optimize in-depth discussions.

5. Time of year also may impact upon students' learning experiences in high-quality intensive courses. Some students in the study, no matter how many high-quality attributes were present, resisted intensive summer classes. On the other

hand, these same students often were amenable to taking an intensive course in the regular semester or in a January interim session.

6. Students' responses to intensive courses also seem to be mediated by the subject matter. Students who take intensive courses in their major seem to maintain their involvement and interest in a class better than students in intensive general education courses. For instance, even though the marketing instructor often employed a transmission model of teaching, the intensive class maintained students' interest because of their intrinsic interest in the subject. Conversely, the English students exhibited less intrinsic interest in English literature and thus, the English instructor had to exert more energy to maintain student involvement.

7. Finally, how students experience intensive courses depends on their relative classroom experience. The summer marketing students indicated that Dr. Scott was much more personable and interactive in the classroom than the other marketing instructors, and thus, in relative terms, they perceived his teaching approach as more process-oriented and connected, although he often employed a transmission model of instruction. Therefore, students' relative experience with other instructors in other classrooms will influence how they experience an intensive class.

VII. FUTURE RESEARCH

A. There is every indication that enrollment trends will likely encourage more experimentation with intensive formats, which underscores the need for further research. This study explored how students' learning experiences in intensive and semester-length courses differ as well as ways to maximize learning experiences in intensive courses. However, many questions remain unanswered.

1. First, I argued previously that intensive courses which incorporate a process-oriented connected approach to teaching

and learning yield more powerful learning experiences than comparable classes in the semester. While this study provides supporting evidence, more research is needed to corroborate this hypothesis.

2. Second, additional research is needed to compare short- and long-term learning outcomes in matched intensive and semester-length classes, especially those that incorporate the high-quality attributes students' identified. This study suggests that high-quality intensive courses will yield better short- and long-term learning outcomes than comparable semester-length classes, but further research is needed to support this hypothesis.

3. Third, more case studies are needed to compare different types and levels of intensive formats and their relative impact on students' learning experiences and outcomes.

4. Fourth, additional research is needed to explore whether instructors who routinely teach intensive courses modify their instructional approaches as Allen, Miller, Fisher, and Moriarty (1974) suggested (see literature review). If true, scheduling instructors to teach more intensive courses may be one way of encouraging faculty to adopt new teaching methods.

5. Fifth, a study is needed that investigates how intensive course experiences compare between students and faculty who enroll or teach intensive courses exclusively (e.g., students enrolled in modular calendar colleges/universities) versus semester students and instructors who only take or teach the occasional intensive class.

6. Sixth, teaching intensive courses in the way advocated by students requires changes--changes which will most likely engender considerable faculty resistance. Research will be needed on how best to encourage faculty to adopt new teaching strategies. For example, will faculty development programs that offer stipends to faculty who attend and

incorporate new teaching methods into the classroom be effective or would other methods prove more fruitful?

7. Seventh, this study suggests that many students perceive intensive courses as a means to earn "quick and dirty" credits. It seems that neither faculty nor students understand their potential as powerful teaching and learning tools. This suggests that further research is needed on how best to market summer school classes to help faculty and students maximize their potential.

8. Finally, since this was only an exploratory study involving only two cases, similar studies are needed to corroborate and broaden my understandings of students' learning experiences in intensive courses and ways to maximize those experiences.

VIII. CONCLUSION

A. I conclude my presentation on a pessimistic and optimistic note.

1. These and other research questions can help to open important avenues of research--research which is both needed and can improve teaching and learning in higher education. In the end, however, the relative impact of high-quality intensive courses may be a moot point.

2. There are important implications for process-oriented connected teaching and the proliferation of intensive courses for higher education--implications that would probably bar any widespread change.

a. For example, an intensive, process-oriented, connected approach to teaching and learning would undoubtedly change classroom dynamics. This approach would empower students to participate more actively in their education and to challenge ideas. Conversely, this approach would require instructors to relinquish some

control, authority, and ultimately power in the classroom.

b. Second, intensive courses taught in the fashion students advocated are more "classroom intensive" and require more instructional preparation. As a result, they often interfere with faculty's research and community service responsibilities--responsibilities that typically garner greater institutional rewards than good teaching.

c. Thus, in the end, it may not matter whether intensive courses offer students' the potential for a more powerful and enriching learning experience if they disrupt the status quo.

3. On the other hand, if we wait for intensive courses and process-oriented teaching to be sanctioned, change will never occur. It must be a grass-roots effort. Slowly but surely, we must encourage further research, offer faculty development programs, train doctoral students in process-oriented/connected teaching methods, and convince students that intensive courses offer much more than "quick and dirty" credits. Indeed, they can be powerful alternatives to semester formats.

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Table 1

Intensive Course Studies by Type of Format

Study	Course Durations Compared	Outcome			
		NS	+I	+T	C
Summer					
Austin et al, 1988	1-week; 2 1/2-wknd*; 5-wknd; and 5-week classes	X			
Bester, 1965	6-week and 16-week classes	X			
Boddy, 1985	5-, 8-, and 16-week classes	X	X		
Deveny and Bookout, 1976	8-week class				X
Eller, 1983	8-week class				X
Gaston, 1974	12-week and 2-quarter classes		X		
Gleason, 1986	3-, 5-, and 15-week classes	X	X		
Kanun et al., 1963	5- and 10-week classes	X			
Kanun et al., 1963	2 1/2-, 5-, and 10-week classes	X			
Keilstrup, 1981	6-week class				X
Masat, 1982	3-week, 6-week, and semester-length classes	X			
Murphy, 1979	2-week class	X			
Parlett and King, 1971	4-week and semester-length classes				X
Solecki, 1971	6-week class				X
Stephens, 1978	12-week class				X
Troiani, 1986	10-day class				X
Wagschal and Wagschal, 1992	2-week and 4-week class	X			

Table 1 (continued)					
Interim					
DuVerlie, 1973	Interim class				X
Masat, 1982	3-week, 6-week, and semester-length classes	X			
Richey et al. 1965	13-day and 17-week classes	X	X	X	
Studdard, 1975	3- and 15-week classes	X			
Tyler, 1970	4-week class				X
Wallace, 1972	3-week class				X
Modular					
Blackburn et al., 1977	3-, 7-, and 14-week classes	X			
Haney, 1985	modular and semester classes	X			
Kuhns, 1974	modular and semester classes		X		
Mazanec, 1972	3-, 6-, and 15-week classes	X	X		
Richardson, 1973	8-week class				X
Waechter, 1966	9- and 18-week classes	X			
Regular Term					
Allen, 1974	5- and 15-week classes	X			
Brackenbury, 1978	7-, 8-, 15-week, and 4-wknd classes	X			
Doyle and Sanders (cited in Doyle, 1978)	3-week, 6-week, and semester-length classes	X			
Frank, 1973	one semester class				X
Kirby-Smith, 1987	"intensive" and 15-week classes	X			
Knowles, 1972	7-day and 15-week classes	X			
Ray and Kirkpatrick, 1983	3- and 15-week classes		X		

Table 1 (continued)					
Weekend					
Austin et al., 1988	1-week, 5-week, 2 1/2-wknd, and 5-wknd classes	X			
Berk, 1979	8-day class				X
Brackenbury, 1978	7-, 8-, 14-week, and 4-wknd classes	X			
Doyle, 1978	2-wknd and 4-week classes	X			
Doyle et al., 1980	2-wknd and 16-week classes	X			
Doyle and Yantis, 1977	4-wknd and 9-week classes	X			
Lasker et al., 1975	unspecified				X
Pflanzer and East, 1989	unspecified				X
Shapiro, 1988	2-, 3-, and 9-week and 4-wknd classes	X			

*wknd = weekend
NS = nonsignificant differences in outcome
+I = findings in favor of intensive formats
+T = findings in favor of traditional formats
C = case study - all case studies favored intensive formats

Table 2

Temporal Differences Between the Summer and Fall English Classes

Difference	Summer	Fall
Scheduled format^	75 min. a day, 4 days a wk. for 8 wks.	85 min. a day, 2 days a wk. for 14 wks.
Total hours of scheduled class time^	38	38
Total number of scheduled class sessions^	31	27
Actual number of in-class hours^	31	27
Average length of class session^	1 hr., 5 min. out of 75 min.	1 hr., 11 min. out of 85 min.
Number and percent of classes canceled^	Number = 4 Percent = 13	Number = 5 Percent = 19
Number and percentage of classes ending more than 15 minutes early^	Number = 4 Percent = 13	Number = 8 Percent = 30
Total amount of class time devoted to discussing literature (poetry, books, and essays)*	15 hrs., 41 min.	14 hrs., 47 min.
Total amount of time devoted to poetry^	9 hrs., 16 min.	9 hrs., 43 min.
Total amount of time devoted to discussing each poem*	15 min.	11 min.
Number of poems discussed^	38	53

Table 2 (continued)		
Difference	Summer	Fall
Total amount of time devoted to discussing books^	5 hrs., 34 min.	3 hrs., 59 min.
Number of books discussed^	3	3
Amount of time devoted to discussing each book^	111 min.	80 min.
Total amount of time devoted to essays^	1 hr., 11 min.	1 hr., 5 min.
Number of essays discussed^	4	4
Amount of time devoted to discussing each essay^	18 min.	16 min.
Number of authors discussed^	27	29
Amount of time devoted to discussing each author**	49 min.	37 min.
Amount of time students "taught" the class^	4 hrs., 9 min.	1 hr., 55 min.
Number and amount of time students in small groups^	Number = 8 2 hrs., 40 min.	Number = 4 1 hr., 6 min.
Class beginnings and endings^	3 hrs., 33 min.	2 hrs., 58 min.

^ Not tested; * Statistically nonsignificant difference ($p > .05$); ** Statistically significant difference ($p < .05$)

Table 3

Temporal Differences Between the Summer and Fall Marketing Classes

Comparison	Summer	Fall
Class Schedule	150 min./day; 4 days/wk. for 4 wks.	55 min./day; 3 days/wk. for 14 wks.
Total hrs. of scheduled class time	38	38
Number of scheduled class sessions	15	41
Number of actual class sessions	15	39
Total hours of actual class time	27 hrs., 55 min.(w/breaks) 25 hrs., 58 min. (w/o breaks)	32 hrs., 13 min.
Number and percent of classes ending more than 15 minutes early	Number = 7 Percent = 47	0
Avg. length of each class session	2 hrs. (out of 150 min.)	52 min. (out of 55 min.)
Avg. length of lectures/discussions	47 min.	56 min.
Amount of time devoted to role playing	33 min.	1 hr., 18 min.
Amount of time devoted to guest speakers	2 hrs., 50 min.	4 hrs., 8 min.
Amount of time devoted to watching student videotapes	55 min.	2 hrs., 42 min.
Class beginnings and endings	2 hrs., 21 min.	2 hrs., 23 min.

Table 4

Differences Between Summer and Fall Marketing Students

Comparison	Summer	Fall
Number of students in class^	14	9
Age*	24.1	22.7
Reported GPA*~	2.82	2.73
Year in school+	3.93	4.0
Expected grade in class~	3.50	3.44
Reported interest in subject**	1.86	2.22
Hours worked per week	21.7	16.3
Average number of absences per day^	.86	.49
Major^	No. % Mar. 7 50% Bus. 4 29% Mis. 1 7% H.Res 1 7% Hlth. 1 7%	No. % Mar. 6 67% Bus. 1 11% Mis. 1 11% Fin. 1 11%
Gender^	Male 8 57% Fem. 6 43%	Male 7 77% Fem. 2 22%
Students agreeing to be interviewed^	13	8

None of the tests statistically significant; ^ Not tested; * Missing data; **Based on 4 pt. scale (1=very interested; 4=no interest); ~ Based on traditional 5 pt. grading scale; + Based on 4 pt. scale (1=freshman; 4=senior); Mar. (Marketing); Bus. (Business Administration); H.Res. (Human Resources); Hlth. (Community Health); Mis (Management Information Systems); Fin. (Finance)

Table 5

Differences Between the Summer and Fall English 252 Students

Student Comparisons	Summer			Fall		
Number in class^	20			24		
Age*	22.3			20		
Year in school*	3.10			2.42		
Hours worked/week*	25.9			10.1		
Reported gpa*~	3.14			2.82		
Interest in subject**	2.55			2.86		
Expected grade*~	3.5			3.23		
Students attending other universities^	5			0		
Average number of absences^	1.7			2.2		
Major^		No.	%		No.	%
	Humanities	2	10	Humanities	4	17
	Soc. Science	3	15	Soc. Science	6	25
	Business	6	30	Business	2	8
	Science	5	25	Science	1	4
	Health	3	15	Health	7	29
	Undecided	1	5	Education	4	17
Number of male students^	7 (35%)			5 (21%)		
Number of students agreeing to interview^	16 (80%)			12 (50%)		

^ = Not tested; * Significant difference ($p < .05$); ~ Based on five point scale (0=F and 4=A); ** Based on four point scale (1=Very Interested; 4=No Interest); S. Science = Social Science